

being tested. Pneumatic tests may be made with the refrigerant in the system or if the refrigerant has been removed, oil-pumped dry nitrogen or bone dry carbon dioxide with a detectable amount of the refrigerant added, should be used as a testing medium. (Carbon dioxide should not be used to leak test an ammonia system.) In no case should air, oxygen, any flammable gas or any flammable mixture of gases be used for testing.

Subpart 58.25—Steering Gear

SOURCE: CGD 83-043, 60 FR 24776, May 10, 1995, unless otherwise noted

§ 58.25-1 Applicability.

(a) Except as specified otherwise, this subpart applies to—

(1) Each vessel or installation of steering gear contracted for on or after June 9, 1995; and

(2) Each vessel on an international voyage with an installation of steering gear contracted for on or after September 1, 1984.

(b) Each vessel not on an international voyage with an installation of steering gear contracted for before June 9, 1995, and each vessel on an international voyage with such an installation contracted for before September 1, 1984, may meet either the requirements of this subpart or those in effect on the date of the installation.

§ 58.25-5 General.

(a) Definitions.

Ancillary steering equipment means steering equipment, other than the required control systems and power actuating systems, that either is not required, such as automatic pilot or non-followup control from the pilothouse, or is necessary to perform a specific required function, such as the automatic detection and isolation of a defective section of a tanker's hydraulic steering gear.

Auxiliary steering gear means the equipment, other than any part of the main steering gear, necessary to steer the vessel in case of failure of the main steering gear, not including a tiller, quadrant, or other component serving the same purpose. Control system means the equipment by which orders

for rudder movement are transmitted from the pilothouse to the steering-gear power units. A control system for steering gear includes, but is not limited to, one or more—

- (1) Transmitters;
- (2) Receivers;
- (3) Feedback devices;
- (4) Hydraulic servo-control pumps, with associated motors and motor controllers;
- (5) Differential units, hunting gear, and similar devices;
- (6) All gearing, piping, shafting, cables, circuitry, and ancillary devices for controlling the output of power units; and
- (7) Means of bringing steering-gear power units into operation.

Fast-acting valve, as used in this subpart, means a ball, plug, spool, or similar valve with a handle connected for quick manual operation.

Followup control means closed-loop (feedback) control that relates the position of the helm to a specific rudder angle by transmitting the helm-angle order to the power actuating system and, by means of feedback, automatically stopping the rudder when the angle selected by the helm is reached.

Main steering gear means the machinery, including power actuating systems, and the means of applying torque to the rudder stock, such as a tiller or quadrant, necessary for moving the rudder to steer the vessel in normal service.

Maximum ahead service speed means the greatest speed that a vessel is designed to maintain in service at sea at the deepest loadline draft.

Maximum astern speed means the speed that it is estimated the vessel can attain at the maximum designed power astern at the deepest loadline draft.

Power actuating system means the hydraulic equipment for applying torque to the rudder stock. It includes, but is not limited to—

- (1) Rudder actuators;
- (2) Steering-gear power units; and
- (3) Pipes, valves, fittings, linkages, and cables for transmitting power from the power unit or units to the rudder actuator or actuators.

Speedily regained, as used in this subpart, refers to the time it takes one